
memo

Date: July 1, 2002
To: Garry Flamm
From: Bob Henderson, LC, CLEP
Subject: Comments on California Outdoor Lighting Draft

Garry, here are my comments:

1. Page 2 - Rationale - 1st bullet

Document reads, "...but complaints are related mostly to sports lighting, billboards and street lighting." There are major contributors, however much of the bad lighting comes also from non-cutoff wall packs, parking lot lighting and general security lighting. I would like to see the original three categories broadened to include these outlined.

2. Page 4 - Controls

Documents reads, "... reducing lighting power to 50% of maximum." I suggest adding "... 50% of maximum wattage." to make it bulletproof. There is a problem with this provision as it is now written because of the security issues associated with the reduced lighting levels. I will be asking that the IESNA RP-10 revision (now under development) include a provision that "if security is identified as an issue at the site, the light levels should be increased to RP-10 recommendations. This should included in all lighting ordinances. This can be easily done using wattage for your purposes. I would also suggest that these areas to be exempt from the 50% reduction provision due to the higher light level requirements. This will drive up the cost of lighting while reducing the power usage.

3. Page 9 - Curfew Controls

Document reads "...Curfews can be set locally". I agree with setting them locally, however curfews in general have the same concerns as dimming and/or switching as outlined in #2 above. The override is recommended for RP-10 areas identified as a security issue or problem area. Also, I assume that zone 4 will include car lots. 2 AM may be too late a curfew for them. They can go earlier - maybe up to local call, but many towns may not heed this option and just go with what is in this code - i.e. 2 AM.

4. Page 17 - Description

Document reads, "... a time clock must be provided to turn off or reduce lighting for curfew hours. The lighting control must also be capable of reducing lighting to 50% of full power during one stage of curfew. The override is recommended for RP-10 areas identified as a security issue or problem area. Also, I assume that zone 4 will include car lots. 2 AM may be too late a curfew for them.

5. Page 18 - Luminaries

Document reads, "... Typical pole heights or 20 ft. 30. ft....". Recommend that mounting heights are used or state that a raised foundation of 2' is also allowed in addition to the pole height for parking areas that require bumper protection.

6. Page 19 - Document reads, "...Some parking lot designs utilize a vertically-oriented lamp in a type V optics. While this will produce better uniformity on the ground, the glare produced by this luminaire type is generally unacceptable...."
The last sentence is a personal judgement and is not in the best interest of visibility or energy conservation!! This is just

wrong to do. This is a very environmental position that is contrary to good lighting design overall. A full cutoff flat lens with a vertical lamp is far superior overall to a horizontal lamp. It would be a tragedy to leave this statement in this document as it now reads. Full cutoff vertical lamp fixtures should be allowed.

7. Page 22 - Allowed Power. Table needs a heading that indicates watts per square foot to make it more user friendly.

8. Page 24 - 5th paragraph down. Document reads, "... Most of these globes or acorns have poor optics, are energy inefficient, and are a significant source of glare, light trespass, and light pollution, which make them unacceptable for use."... The statement is generally true, however an internal refractor (type V) when used with a coated lamp and a top and side shield if needed depending on the application and zone, will work here and should be allowed. This prevents the forced move up to a more expensive refractive globe. Many refractive globes are just as bright and glary as the non-refractive globe. I recommend that prescriptive requirements be used as just outlined (internal refractor, coated lamp and internal shield(s) to allow this non-refractive globe option.

9. Page 26 - table 16 Add heading of watts per square foot so as not to confuse it with Footcandles

10. Page 33 - Minimum Theoretical Watts - Use input watts as further explanation here. That is what people know. Minimum Theoretical Power Density - add (watts per square foot) to further clarify

11. Page 36 - Lighting Equipment - Document reads, "... there is almost no cost difference between pulse start and probe start MH luminaries." Even though this is from one vendor (Rudd), the statement in this generic document is misleading to the general reader. Not only is there a good chance that other vendors may not experience this same pricing, it infers that pulse start is the proffered option. At present, there is no horizontal rated pulse start MH lamp on the market. There is a zero to 90, but this is not the same as horizontal. This is premature and wrong to infer this at this time, based on existing market conditions. A product should not be endorsed that is not currently on the market.

12. Page 37 - Calculations - There is no mention of typical spacing or whether the luminaries can house vertical, horizontal or both types of lamps. The Lithonia G1 series is virtually unknown to most specifiers, per Lithonia engineering. Please choose a more popular base line fixture.

13. Page 39 - Table 30 - Add watts per square foot for clarification. Note: Some of the above statements are strongly worded to reinforce the level of intensity of feelings. They are are not meant to be taken personally by anyone. As you might realize, this document will ultimately affect the rest of the US and perhaps the world, so now is the time to "speak up" and I have done so. I consider this document to be a major step forward and applaud all that worked on it. It is difficult to take unorganized matter and organize it.

Hopefully the comments here will help. Thanks for listening.

Bob

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